

Title (en)  
MEASURING RESISTOR AND CORRESPONDING MEASURING METHOD

Title (de)  
MESSWIDERSTAND UND ENTSPRECHENDES MESSVERFAHREN

Title (fr)  
RÉSISTANCE DE MESURE ET PROCÉDÉ DE MESURE CORRESPONDANT

Publication  
**EP 2981833 B1 20170125 (DE)**

Application  
**EP 14705477 A 20140217**

Priority  
• DE 102013005939 A 20130405  
• EP 2014000430 W 20140217

Abstract (en)  
[origin: WO2014161624A1] The invention relates to a measuring resistor (1), in particular a low-resistance current-measuring resistor, comprising two terminal parts (2, 3) that consist of a conductor material for introducing and discharging a current, and a resistor element (4) that consists of a resistor material, wherein the resistor element (4) is arranged between the two terminal parts (2, 3) in the direction of the current and current flows through the resistor element (4). According to one variant of the invention, the measuring resistor (1) has several pairs of voltage-measuring contacts (7) for measuring the voltage falling across the resistor element (4) in order to be able to compensate metrologically for inhomogeneities in the current density. In contrast, according to another variant of the invention, one pair of voltage-measuring contacts (7) is arranged at a location at which the measuring resistor (1) exhibits neither a capacitive behaviour nor an inductive behaviour, such that the current flowing through the measuring resistor (1) and the voltage across the voltage-measuring contacts (7) are substantially in phase.

IPC 8 full level  
**G01R 35/00** (2006.01); **G01R 1/20** (2006.01); **G01R 19/00** (2006.01)

CPC (source: EP US)  
**A45C 1/02** (2013.01 - EP); **A45F 5/02** (2013.01 - EP); **G01R 1/203** (2013.01 - EP US); **G01R 19/0092** (2013.01 - EP US);  
**G01R 35/005** (2013.01 - EP US); **H01C 1/14** (2013.01 - EP); **H01C 1/144** (2013.01 - EP); **H01C 1/148** (2013.01 - EP);  
**A45C 2001/022** (2013.01 - EP)

Designated contracting state (EPC)  
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)  
**DE 202013011690 U1 20140226**; CN 105074477 A 20151118; CN 105074477 B 20190514; DE 102013005939 A1 20141009;  
EP 2981833 A1 20160210; EP 2981833 B1 20170125; EP 3139183 A1 20170308; EP 3139183 B1 20170809; ES 2620542 T3 20170628;  
ES 2644003 T3 20171127; JP 2016514841 A 20160523; JP 6473441 B2 20190220; KR 102101895 B1 20200420; KR 20160003684 A 20160111;  
US 10151779 B2 20181211; US 2016041206 A1 20160211; WO 2014161624 A1 20141009

DOCDB simple family (application)  
**DE 202013011690 U 20130405**; CN 201480019379 A 20140217; DE 102013005939 A 20130405; EP 14705477 A 20140217;  
EP 16002093 A 20140217; EP 2014000430 W 20140217; ES 14705477 T 20140217; ES 16002093 T 20140217; JP 2016505721 A 20140217;  
KR 20157031323 A 20140217; US 201414779009 A 20140217